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THESIS

MOTIVATION FOR FIRST TERM
RESERVE REENLISTMENT

by

James S. Sullivan Jr.

June 1985

Thesis Co-advisors G. W. Thomas
J. I. Borack

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Motivations for First Term Reserve Reenlistment

by

James S. Sullivan Jr.
Captain, United States Army
B.S., United States Military Academy, 1978

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
June 1985

ABSTRACT

This thesis was an exploratory research effort that determined the differences and similarities in reenlistment factors for prior active service (PAS) and non-prior active service (NPAS) reservists. Reenlistment models, using a breadth of reenlistment factors elicited by the Rand Corporation's 1979 reserve force studies surveys, were developed for first-term PAS and NPAS reservists of grade E-3 or E-4 who were within 18 months of ETS and who had entered the military after the start of the All Volunteer Force (June 1973). Reenlistment factors examined were: demographic, tenure, cognitive/affective orientation, family income, civilian work environment, and perceived alternative job opportunities. The results of this study indicate that the qualitative aspects of the reserve job and the civilian employer's attitude towards reserve participation are important variables to both groups of reservists. Satisfaction with pay, problems associated with obtaining transportation to and from drill sites, the amount of time spent on reserve duties, and the length of time to promotion are also important factors considered by the reservist in making the reenlistment decision.

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I. INTRODUCTION

A. RESERVE HISTORY

The military reserve in the United States has its roots deep in American history. The citizen soldier system practiced in the American colonies was modeled after Great Britain's military system and came to be known as the American militia.

The militia coexisted with its professional counterpart of the time, the continental or standing army, up to and through the Spanish American War of 1898. Changes to America's military system were infrequent over the years largely due to the success of the militia. The few changes undertaken were made with no regard to the resultant efficiency of the militia. However, military reformers at the time of the Spanish American War were very cognizant of the salient features of the conscription systems effectively implemented by the European powers. Under these systems, men were drafted into the active army and involuntarily assigned to reserve mobilization billets thus providing a readily available pool of trained soldiers for periods of mobilization. Additionally, this system integrated the training and professional development of soldiers in both the active and reserve forces. [Ref. 1]

The turn of the century saw change to America's military system once again resisted; this time because of success in the Spanish American War. However, during the first few years of the nineteenth century, America's industrial might along with its rapidly improving lines of transportation and communication were creating a more politically active nation on the international level. International politics mandated a larger and more effective military force and a somewhat more centralized and rigorous reserve system than that of the previous 1898 army and militia [Ref. 2]. Three statutes of Congress, beginning with the Dick Act of 1903 and followed by the National Defense Acts of 1916 and 1920 provided for a large, voluntary standing force, a reserve force to be primarily used for support missions, and a national guard to be used for combat and civil disturbance missions. These three acts, although amended over the years, provided the structural framework that largely exists in America's military system today.

B. BACKGROUND MATERIAL: PRESENT DAY RESERVE SYSTEM

In the present day, the term "reserves" embodies two distinct classifications of civilian soldier--those belonging to the selected reserves, and those belonging to the individual ready reserves.

The selected reserves are those reserves organized into units whose primary wartime mission is to provide combat and

combat support units that can be mobilized very quickly. In peacetime, reserve units may be used for a variety of civil disturbance/control missions. These reserve units are organized into six components: the Army and Air National Guard and a separate reserve component for the Army, Navy, Marine Corps, and Air Force [Ref. 3]. The term "weekend warriors" are often applied to these reservists since they train or drill only one weekend per month and for one two week period annually. Reservists receive pay for both their monthly drills and annual training, and most reservists maintain a full-time or part-time civilian job.

The Individual Ready Reserves (IRR) is a relatively unstructured organization of individuals who have served less than six years in the active or selected reserve forces and have residual military obligation (upon volunteering or being drafted, an individual incurs six years of military service obligation). The members of the IRR are not organized into units and do not receive periodic training or pay [Ref. 4]. The IRR's purpose is to provide a pool of trained individuals available for immediate call-up, to provide fillers for the active force as dictated by the number of casualties during the initial stages of a major conflict, and to provide fillers for the selected reserves to bring them up to full strength prior to their mobilization. These individuals are differentiated from conscripts in that they are considered "pre-trained". This

distinction is important because by law an individual with less than three months of military training may not be sent to a combat zone. This means that untrained manpower in the form of conscripts cannot serve as fillers for either the active force or mobilized reserve forces until a hundred or so days after the decision to start the draft.

C. RESERVE MANNING PROBLEMS

There were few problems associated with filling the reserves during the Vietnam draft era of the 1960's and early 70's. This resulted from the fact that through the continued renewal of the Selected Service Act of 1948, reserve duty meant deferral from being drafted into the active force. However, a move to an All Volunteer Force (AVF) as was proposed during the late 1960's, required that the potential problems associated with the manning of both forces be looked at closely.

The Gates Commission, which was formed by President Nixon in 1969, was instructed to investigate the manning problems associated with an American military method of manning change from that of the draft to the volunteer system. The commission focused largely on the active force, but concluded that reserve manning problems would be manageable if requirements for reserve forces stayed in line with predicted levels. This assessment turned out to be a gross underestimate of reserve manning problems. From 1973

(AVF was introduced in June of that year) to 1978 the total number of individuals in the reserves declined from 2.2 million to just over 1 million [Ref. 5].

The Army's selected reserve manning history over the aforementioned periods is shown in Table I. Data from 1980 are also included.

TABLE I

Army Manning History (End Strengths in Thousands and Wartime Requirements in Parenthesis) [Ref. 6, p. 120]

	FY64	FY73	FY78	FY80
Army National Guard	382(400)	386(400)	341(431)	367(436)
Army Reserve	269(300)	235(260)	186(267)	207(266)
Total	651(700)	621(660)	527(698)	574(702)

Responding to noticeable declines in the reserve forces the Department of Defense (DOD), starting in 1977, began a series of actions to rebuild reserve strength. The history of this program is summarized below:

1978 - Reenlistment bonuses of $400 for three years and $800 for six years.

- Educational assistance of up to $500 per year with a maximum of $2,000 in six years.

1979 - Enlistment bonus of up to $1,500 for six years.

1981 - Enlistment bonuses increased to a maximum of $2,000 for six years.

- Educational assistance increased to $1,000 per year with a maximum of $4,000 for six years.

- Affiliation bonus of $25 per month for those leaving active duty for each month of the six-year obligation remaining at the time of joining the selected reserve.

- Loan forgiveness for those with education loans insured under the Higher Education Act, at a rate of 15 percent or $500, whichever is greater, for each year of satisfactory selected reserve service. [Ref. 7]

The policy of utilizing bonuses and educational assistance to motivate individuals to access and reenlist in the selected reserves has remained in effect up to the present day and has certainly contributed to a twenty-one percent increase in selected reserve strength since 1980. However, this success in reserve force recruiting has served to perpetuate the long existing problem of insufficient research in the areas of motivations for enlistment and reenlistment and applications and implications of secondary labor market participation theory in the selected reserve environment. Additionally, since 1981, there has been a deliberate shift of military missions from the active force to the selected reserves. Commenting on this mission shift, senior Pentagon Officials have recently stated that the selected reserve roles are near the saturation point [Ref. 8]. Accordingly, this evidence of a changing reserve environment along with evidence that moonlighting, as part of the American life-style for the lower-income strata, has been fading, only serve to exacerbate the lack of reserve retention research. [Ref. 9]

Most reserve retention research to date has taken an economic approach. While this approach has been effective in providing a basic framework from which to formulate policy for reserve retention, it has lacked breadth. A more comprehensive approach would include compensation as only one of many variables affecting retention. One of the most strongly supported findings in research on motivations for enlistment and reenlistment is "that while economic incentives may be sufficient to recruit citizen soldiers, they are not sufficient to retain them." [Ref. 10] Reserve retention analysis must look beyond just the minimum economic incentives for retaining reservists. Therefore, both economic and attitudinal measures must be utilized for a more complete and comprehensive analysis of retention.

D. PURPOSE

Recent data collection efforts on reservists have enhanced our ability to identify the breadth of factors involved in the reenlistment decision. This thesis will take such a broad approach and will investigate those factors involved in the reenlistment decision of the 1st term Army reservist. If these factors can be identified, this information can be used by manpower policy makers to manage retention more efficiently in the reserves. Sufficient retention of the right type of individuals at

their first reenlistment opportunity should be an integral component of any reserve manpower retention plan.

II. REVIEW OF LITERATURE AND THEORY

A. GENERAL TURNOVER THEORY AND MODELS

Turnover is a general term used to describe the event that takes place when an individual crosses the membership boundary of an organization. A large number of researchers have examined the effects of economic conditions on the turnover process. Fewer researchers have examined the individual variables that are important factors in the turnover process, and almost no research efforts have attempted to evaluate the relative importance of these variables. However, existing civilian turnover literature provides an excellent framework and starting point for the analysis of turnover in a moonlighter's environment such as is found in the United States Army Reserves.

There are several studies that document a consistent propensity for job satisfaction to act as a predictor of turnover [e.g., Mobley, Griffeth, Hand & Meglino, 1979; Porter and Steers, 1973; Price, 1977]. In all studies of the relevance of job satisfaction to turnover it was concluded that there were other variables substantially involved in the turnover process.

Behavioral intentions have been researched by: Davidson, Jaccard, Triandis, Morales and Diaz-Guerrero,

1976; Fishbein, 1967; Kraut, 1975; Mobley, 1977; Newman, 1974; and Triandis, 1975, 1976, 1977. The Fishbein and Triandis theoretical models will be briefly discussed as they were later tested for applicability to the selected reserve environment.

Fishbein's theoretical model views attitude toward performing the behavior and the subjective norm regarding the behavior as the major components of behavioral intention. The model's ability to predict behavioral intention is viewed as its strength.

The Triandis model suggests that behavioral intention is a combination of the desire to perform the act, the perceived consequences of performing the act and the desirability of those consequences, and the perceived appropriateness of the act by relevant others. A good reivew and comparison of the models is found in Hom & Hulin, 1981.

Organizational commitment was researched by Porter, Crampon & Smith, 1974, 1976; Porter, Steers, Mowday and Boulian, 1974; and Steers, 1977. Porter et al. (1974) included withdrawal intention in their commitment scale and found that organizational commitment was a better predictor of turnover than job satisfaction. His model was later tested for applicability to the selected reserve environment.

Other variables hypothesized as affecting turnover include role attachment [Green, 1975; Graces & Ginsberg, 1977], perceived existence of alternative job opportunities [Mobley, et al., 1979], various demographic factors such as sex, age, tenure, etc., by Steers and Mowday (1981), and affective and cognitive factors by Motowidlow and Lawton (1984).

Research by Muchinsky and Tuttle (1979) used several categories of predictors in a study of job turnover. The four categories of factors which most consistently predicted turnover propensity were biodata information, personal factors, attitudinal factors and work-related factors [Ref. 11].

Hoiberg and Barry (1972) conducted research in the area of expectations and perceptions and found that when expectations were substantially different from the actual experience, dissatisfaction would build and contribute to the turnover act. Mobley et al. (1979) in looking at the effects that other job opportunities have on turnover, found that alternative job prospects, the intention to look for another job and the intention to change jobs were elements of the turnover process.

Sociologists and social psychologists have maintained for some time that personal values, especially with respect to the traditional work ethic, have been undergoing major changes since the 1960's. Additionally, there is evidence

to suggest that, "the new generation of employees expect their immediate supervisor to recognize their individual talents in an atmosphere that allows them as much freedom as possible to `do their own thing'." [Ref. 12] Personal values have been included in research as a component of job attitudes [Brown, 1976; Connors & Becher, 1975; Herzberg, 1974; Mankoff, 1974], and in two more recent studies [Ronen, 1978; Derr, 1979] that researched the involvement of the employee's personal value system, job attitudes, and organizational commitment it was concluded that large organizations should pay more consideration to these factors when developing policy.

The modeling of the factors related to turnover in a sequential array affords better predictability and control of the turnover process. Efforts to model turnover theory have increased in the last six or seven years. Most models are in agreement as to the major factors affecting turnover but differ in the ordering of the predicting factors. A review of some of the most recent models follows.

Mobley, Horner and Hollingsworth (1978) posited the following sequence of factors in their model of the turnover process:

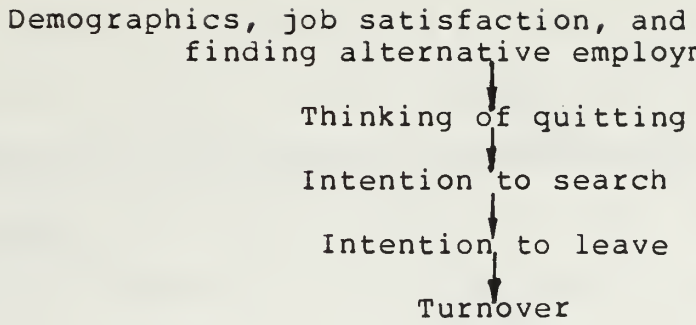

Figure 1. Mobley et al., Model (1978)

In 1979, Mobley, Griffen, Hand, and Meglino proposed a new model that gave consideration to individual perceptions and availability of alternatives relative to the individual's present position.

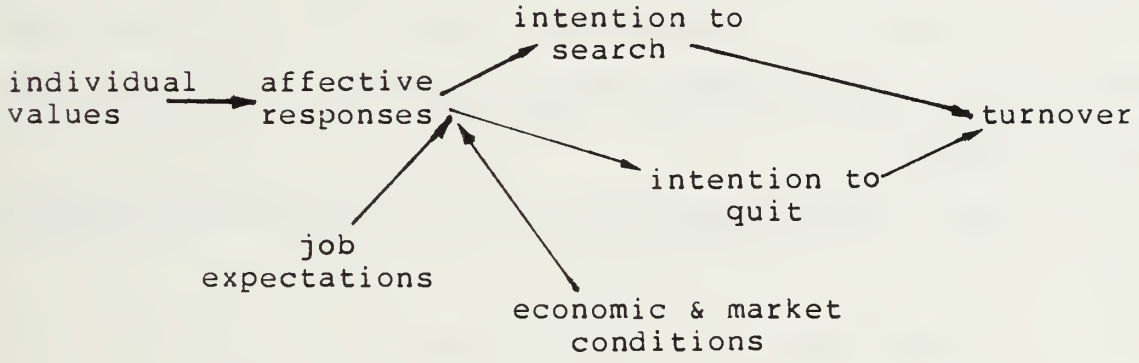

Figure 2. Mobley, et al., Model (1979)

Developing this work further, Steers & Mowday (1981) developed the following model:

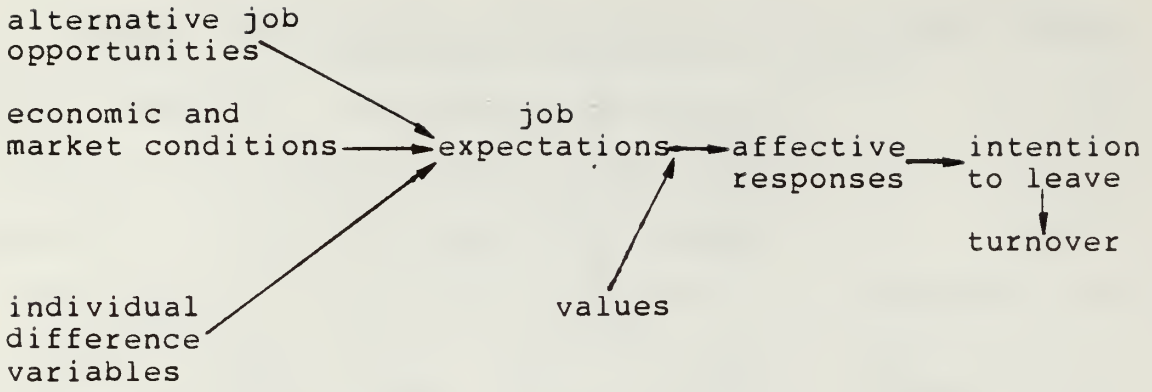

Figure 3. Steers & Mowday Model (1981)

This model views alternative job opportunities, economic and market conditions and individual difference variables as exogenous factors affecting job expectations and personal values and not as major explanatory factors in the turnover prediction equation. Additionally, this model uses only the intention to quit variable and disregards the intention to search variable.

In 1982, Arnold and Feldman hypothesized the following model:

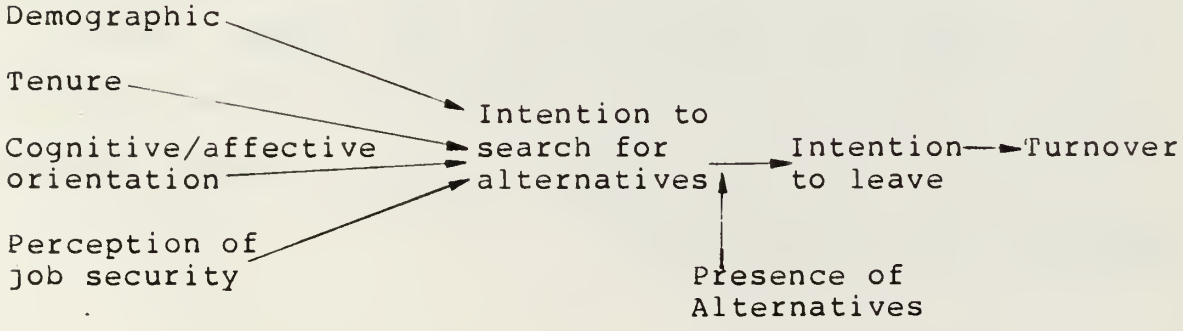

Figure 4. 1st Arnold & Feldman Model

The perceived presence of job alternatives is posited to intervene in the turnover process prior to the effect of the individual's intention to leave. But, following data analysis with this model, it was found that turnover behavior was more strongly related to intentions to search for alternatives than intention to leave when intention to search was preceded by the variables of age, job satisfaction, and organizational commitment. Furthermore, through the data analysis, they concluded that tenure, intention to search, and perception of job security were the most timely variables affecting turnover behavior. These findings lead to the following model:

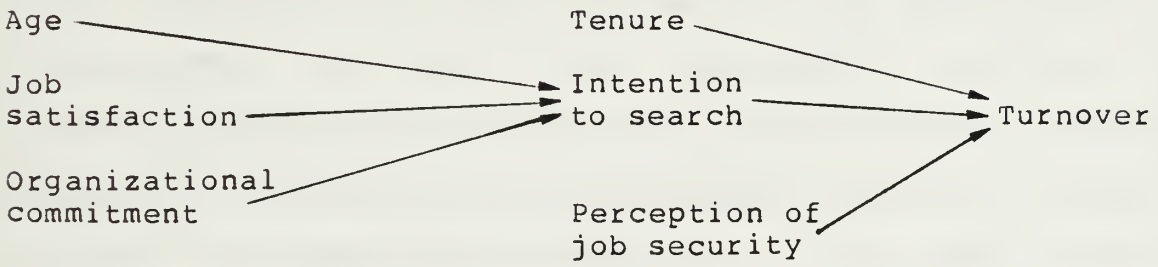

Figure 5. Final Arnold & Feldman Model

Their work also indicates that some personal, cognitive, or affective variables may have direct effects on turnover and are not mediated by intentions.

B. SECONDARY LABOR MARKET PARTICIPATION THEORY

The motivations of individuals in a full-time work environment can reasonably be expected to be different from those of individuals participating in a secondary labor market environment, whether in the private or public sector.

Individuals holding two or more jobs are participating in the secondary labor market and are often referred to as "moonlighters". In a review, The Economics of Multiple Job Holding by Rostker and Shishko (1976), the moonlighting supply curve was estimated with data from the Income Dynamics Panel using the Tobit technique for estimating relationships with limited dependent variables. The article identified the following four major variables: hours worked on the primary job, the primary wage, the secondary wage, and nonlabor income [Ref. 13]. When the primary wage exceeds the moonlighting wage, the individual will reduce moonlighting hours just enough to keep the total work hours constant [Ref. 14]. If, however, the primary wage is less than the moonlighting wage, the individual may choose to work more hours on the secondary job. Additionally, with respect to the primary wage rate, Rostker and Shishko state, "changes in the primary wage alter the minimum wage necessary to induce people to take a second job. In theory, an increase in the primary wage can result in an increase or a decrease in the minimum acceptable second job wage rate" [Ref. 15].

Changes in secondary wages are subject to different qualifications than are changes in primary wages. In general, increases in secondary wages could result in an increase or decrease in secondary hours worked. This result holds when the secondary wage is greater than the primary wage; an increase in the secondary wage generates the usual set of income and substitution effects. The analysis is changed when there are hours constraints on the primary job. Secondary jobs may be accepted when the secondary wage is less than the primary wage. As the secondary wage increases and approaches the primary wage, the individual will unambiguously choose to work more hours [Ref. 16].

Increases in nonlabor income, if an individual's desired hours are greater than his actual hours, will not cause the individual to adjust his hours of work until his desired hours fall sufficiently below his actual hours. If an individual is working more hours than he desires, a small increase in nonlabor income will result in a reduction of hours in either the primary or secondary job.

According to the analysis in another study of moonlighting (Compton, 1979) the supply of labor for second jobs will increase if:

1. Wages in the second job increase significantly.
2. The person is black.
3. The person is nonurban.
4. Wages in the primary job decrease significantly.

5. The person is not a high school graduate.

6. The number of hours required for the primary job decrease.

7. The person's spouse is not working or quits working.

8. The person's nonlabor income (interest, dividends, etc.) decreases or is nonexistent. [Ref. 17]

The above analysis used a combination of economic and demographic characteristics.

John O'Connell's research, which incorporated tax effects into models of multiple job holding, found that "moonlighting hours are influenced by tax perceptions." [Ref. 18] This finding suggests that tax perceptions should be incorporated in the modeling of secondary labor market participation.

C. RESERVE RETENTION RESEARCH

Numerous studies have investigated the application of civilian turnover models to the active force. Much less research applying civilian turnover literature and models with and without consideration of secondary labor market participation theory to selective reserve retention has been performed.

Hom, Katerburg, and Hulin (1978) examined the use of Fishbein's social behavioral theoretical model, Porter's organizational commitment construct, and job satisfaction to predict turnover in a selected reserve component (Illinois National Guard). They found that job satisfaction,

organizational commitment, and Fishbein's theoretical model predicted reenlistment intentions and behavior with high accuracy. Furthermore, they found that Fishbein's model and organizational commitment demonstrated greater effectiveness in predicting turnover than did job satisfaction [Ref. 19].

In 1981, Hom and Hulin examined the prediction of Army National Guard reenlistment intention and actual behavior using behavioral intention models by Fishbein [Ajzen & Fishbein, 1973; Fishbein, 1967; Fishbein & Ajzen, 1975] and by Triandis [Davidson et al. (1976) and Triandis, 1975, 1976 & 1977], an organizational commitment model [Porter et al., 1974, 1976] and a model of job satisfaction [Smith, Kendal & Hulin, 1969]. They found that reenlistment intention was highly related to reenlistment and both reenlistment intent and the actual reenlistment were strongly predicted by the Fishbein and Triandis models, but only moderately predicted by commitment and job satisfaction [Ref. 20].

Rostker and Shishko reported the implications of secondary labor market participation on selected reserve components in their Air Reserve Personnel study: Volume II (1973). They found a strong negative relationship between moonlighting and primary hours worked which they felt might indicate a cyclical aspect of moonlighting. From their analysis they concluded that the elasticity of supply with respect to moonlighting wages is about one (1.0). They

stated that if this holds for the selected reserves, it would suggest that attempts to increse retention with monetary incentives may prove very costly. They also concluded that since reserve pay is relatively fixed, the reserves may have a difficult time attracting individuals who have high-wage moonlighting alternatives. Likewise, once attracted, these individuals may be difficult to retain [Ref. 21].

Burright, Grissmer, and Doering (1982) developed a model for reserve participation based on civilian moonlighting theory. Their model included variables that fell within the following six categories:

1. Reserve pay and time
2. Reserve experience
3. Revealed reserve preferences (draft motivated or prior reenlistment)
4. Civilian work environment
5. Individual characteristics
6. Regional characteristics.

The model was tested with data collected during the 1978 reenlistment bonus test. Only reservists without prior active service, who had less than eight years of service, and who would be making a reenlistment decision in 1978 were sampled. They found that the coefficients of the variables used in their model were generally consistent with the expectations of moonlighting labor market theory,

providing verification that reservists behave somewhat similarly to civilian moonlighters in their consideration of factors important in the second job decision. They also concluded from their analysis that a 10% increase in reserve pay would bring about a 2% increase in reenlistment rates indicating that monetary incentives may not be the most efficient method of improving retention. They also found that several other variables in their model had more weight and higher elasticities than the moonlighting variables which suggests that the reserve reenlistment decision is more complex than the decision described by moonlighting labor theory. In particular, their empirical results suggested that reservists value the qualitative aspects of participation. [Ref. 22]

Another more general research effort based on conversations with many reservists suggests the following retention identification model shown in Figure 6. While not providing a great deal of insight into the reserve turnover process, this figure shows that the needs of first term reservists approaching reenlistment are significantly different from those of reservists in the later years of service. This research also suggests that the existence of fair monetary remuneration is more important to the young reservist than the actual amount. Additionally, this chart clearly shows the importance of cognitive/affective factors relating to the job for the young reservist. [Ref. 24]

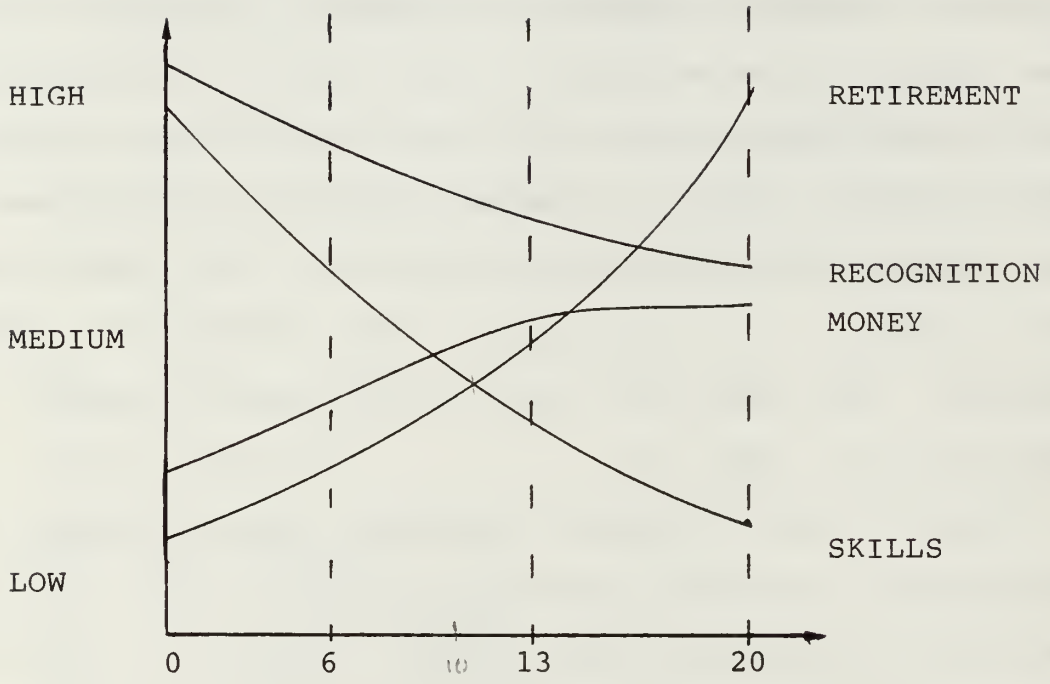

Figure 6. Retention Identification Model [Ref. 23]

SKILLS MORE IMPORTANT DURING EARLY PART of CAREER

RETIREMENT IMPORTANT DURING LATTER PART of CAREER

MONEY PLAYS LITTLE SIGNIFICANT ROLE BUT DOES BECOME MORE OF A FACTOR AS PAY INCREASES

RECOGNITION PLAYS IMPORTANT ROLE IN EARLY CAREER

III. DATA BASE AND VARIABLE SELECTION

A. OBJECTIVES

The major objective of this study is to develop and test working models of the reenlistment decision of both the first term Prior Active Service (PAS) and the first term Non-Prior Active Service (NPAS) reservist. This study will also discuss the variables in each model with respect to their prospective impact on reserve manpower policy. Of particular interest are the following questions:

What differences, if any, exist in the factors related to first term reenlistment decisions of PAS and NPAS reservists?

Is secondary labor market participation theory applicable to the reserve environment?

How important are the intrinsic and extrinsic factors of the reserve job to the first term reenlistment decision?

B. FACTOR CATEGORY DEVELOPMENT

A search of both civilian turnover and secondary labor market participation literature was conducted in order to establish factors associated with the reenlistment decision. The categories of factors determined to be involved in the reenlistment decision were:

1. Demographic--biographic information variables
2. Tenure--length of service variables

3. Cognitive/affective orientation--satisfaction related to the intrinsic and extrinsic aspects of the job

4. Family financial resources--family income variables

5. Perceived alternative job opportunities--income producing job alternatives

6. Civilian work environment--aspects of the reservist's full-time civilian job.

C. DATA BASE

The data base used in this study was derived the RAND Corporation's 1979 Reserve Force Studies Survey which is part of a series of interrelated data-collection efforts of the RAND-DoD survey group. The purpose of the 1979 Reserve Force Studies Survey was to collect data for the Office of the Deputy Assistant Secretary of Defense (ODASD-Reserve Affairs) and the Army Reserve components to support policy research and analysis on reserve force manning problems. The documentation for these surveys is found in the 1979 Reserve Force Studies Surveys: User's Manual and Code Books [Ref. 25].

A sample of 441 Army Reserve and National Guard units which differed in levels of authorized strength, geographic location, and community environment were studied. The specific objectives of the surveys were:

1. to collect data on unit level factors that when combined with other factors will explain reserve force unit manning level differences;

2. to collect data on factors influencing enlistment and reenlistment decisions;

3. to collect data for descriptive statistics from a representative sample of the reserve force population;

4. to provide a baseline data set for a reserve force population sample which can be monitored in the future to study attrition. [Ref. 26]

To collect data on both the individual and unit level, the survey was administered as four questionnaire variants:

1. 1979 Reserve Force Personnel Survey for Enlisted Grades E1-E4 (Form 1),

2. 1979 Reserve Force Personnel Survey for Enlisted Grades E5-E9 (Form 2),

3. 1979 Reserve Force Commander Survey (Form 3),

4. 1979 Reserve Force Unit Survey (Form 4).

A total of 224 Army National Guard and 217 Army Reserve units which together provided a sample poulation of 39,000 enlisted soldiers received the questionnaires described above in November 1979 with all questionnaire variants being returned by May 1980.

A random sample of units from the guard and reserves was taken to satisfy the requirement of obtaining a random sample of individual reservists for future study. Additionally, two "case study" unit samples (one for both the reserve and guard components) were drawn to obtain a sample of units differing with respect to unit strength. Only the random sample of reserve units responding to Form 1 was used in this study of first term reenlistment.

Form 1 includes data from all junior enlisted personnel who were members of the sample units at the time of the

survey administration and contains questions intended to extract data that would illuminate the factors affecting the reenlistment decision. The six major subject areas of Form 1 are described in Table 2.

TABLE 2

Six Major Subject Areas of Form One
(with examples of information for each section)

Military Background: Prior service, paygrade, duty station

Individual enlistment/reenlistment: important reasons for enlisting, important reasons for intending to reenlist/ not intending to reenlist

Military plans: Measure of strength of reenlistment intent

Unit Drill and annual training activities: Problems getting to drills/annual training, satisfaction with supervision, training and equipment supplied at drills/annual training

Individual characteristics: Age, race, sex, marital status, education level, family size

Civilian work: present civilian job and pay, perceptions of availability of part-time civilian work, spouse's job and pay.

1. Form 1 Reserve Response Rate

Reserve response rates for Form 1 were expected to be low due to the age and tenure of the individuals being surveyed. The response rate of 44.2 percent (from a sample size of 10,445) to Form 1 in fact turned out to be the lowest of the four forms. Although the response rate turned out to be lower than expected the rate was considered to be

reasonable when compared to response rates from similar surveys. [Ref. 27]

2. Data Weights

Relative to the army reserve population, the army reserve sample underrepresented small units and overrepresented large units. To adjust for this bias, poststratification weights for units were calculated with unit strength as the weighting variable. Additionally, to correct for existing bias within the entire sample, poststratification weights were computed for the weighting variables of age, sex, and race. [Ref. 28]

D. VARIABLE SELECTION

Form 1 contains a total of 132 questions. The construct used to measure reenlistment is the individual's intent to reenlist and was derived from responses to a question regarding the probability (on a scale of 0 to 10) that the reservist would reenlist.

There exists sufficient precedent for intention data to represent accurately actual behavior data in the reenlistment arena. General findings for the reenistment intention construct such as is used in this study indicate that all levels of reenlistment intent adequately represent actual reenlistment behavior. In other words, for a group of reservists who felt 80% confident that they would reenlist, approximately 80% of that group did in fact

reenlist when their time came to do so. [Ref. 29] and [Ref. 30] Additionally, Orvis (1982), in his analysis of a youth attitude tracking study, found that enlistment intentions have the strongest predictive power of actual enlistment behavior within the first twelve to eighteen months prior to the enlistment date [Ref. 31].

The 131 remaining questions of Form 1 served as candidate independent variables and were placed into one of the six factor categories previously designated for both the PAS and NPAS models. First term reservists of Grades E-3 or E-4 within 18 months of their End of Term of Service (ETS) and who had entered the military after the start of the AVF form the group of reservists to be studied. This decision resulted in a sample of 123 PAS reservists and 92 NPAS reservists. This relatively small sample size forced the deletion of some candidate variables because of insufficient response. Variables were further reduced at this stage by eliminating all those found correlated to reenlistment intent at a level less than .1. A discussion of some variables that were eliminated follows.

Education variables, contrary to current literature, were found not to be significantly correlated to reenlistment intent. Another demographic variable found not to be significantly correlated with reenlistment intent was age. This is possibly due to the fact that there was not much age variation within either the PAS or NPAS groups. In

the civilian job and income areas, variables such as the amount of overtime worked, overtime pay received, reason for not returning to the same employer after initial active duty training, and yearly family income had to be eliminated due to high levels of missing responses. All of these variables were hypothesized to be significantly correlated with reenlistment intent and should be examined in future studies. Another question, requesting the expected hourly wage of a civilian part-time job, had to be eliminated from the perceived alternative jobs factor category due to missing responses. This variable should also be looked at in future studies. Additionally, whether or not the retirement benefit package would be the most important reason for reenlisting had to be eliminated becaue this question directed all reservists to answer and provided no special response choice for reservists who had no intention of reenlisting. Data from this question would certainly be biased, and no accurate analysis could be performed. Future studies should analyze the effect that the retirement benefit package has on PAS and NPAS reenlistment intent. The initial elimination process resulted in 22 variables remaining for the NPAS and PAS models.

The refined set of variables ultimately used in the analysis of reenlistment intent are discussed below and summarized in Table 3.

1. Demographic

The variables in this category are sex, race (white/nonwhite), and marital status (married/nonmarried).

2. Tenure

Tenure was controlled for when the data set was limited to E-3's and E-4's who had entered the reserves after the start of the AVF. Therefore, no tenure measure is used as an explanatory variable.

3. Cognitive/Affective Orientation

The variables in this category are sub-divided into two groups; intrinsic variables relating to satisfaction with integral aspects of the job and extrinsic variables relating to secondary factors associated with the job.

The intrinsic group consists of Satisfaction with Training at Reserve Drills; Satisfaction with the Utilization of Member Occupational Specialty (MOS) Skills; Satisfaction with Promotion Opportunities; the Newness of Reserve Equipment Used in Training; the Mechanical Condition of Reserve Equipment Used in Training; the Morale of Soldiers in Grades E1 Through E4 in the Unit; Satisfaction with Supervision and Direction at Training; Satisfaction with Pay; and the Individual's Overall Satisfaction with Reserve Participation. Satisfaction with Promotion Opportunities was considered an intrinsic factor because promotion opportunities often depend on the particular job being performed. The Morale of Unit Soldiers in Grades

E1-E4 is in part related to the jobs that they perform and was thus designated an intrinsic factor. Also, since most jobs are required to be performed by a reservist of a particular grade who receives pay according to that grade level, Satisfaction With Pay was placed in the intrinsic group. All of the questions in this group were measured on a continuous scale of one to seven where one represented total dissatisfaction and seven represented complete satisfaction (For the equipment related questions, one meant either out of date or poor and seven meant up to date or excellent.).

The extrinsic group consists of Length of Time Expected Until Next Promotion; Distance from Home to Unit Drill Locations; Length of Time It Takes to Get from Home to the Unit Drill Location; Degree of Problem Associated with Obtaining Transportation to Get to the Unit Drill Site, and Feeling About the Amount of Time Spent Performing Reserve Duties. All questions in this group were measured on a continuous scale similar to that used for the intrinsic group.

4. Family Income Factors

Due to high missing response rates, those variables eliciting the reservist's estimated annual family income (before and after taxes) could not be used. Therefore, a question determining whether the spouse was working full or

part-time, and a question determining whether or not the individual worked (full or part-time) last month, were used. For the latter question, the spouse was either working full or part-time or the spouse was not working full or part-time; for the former question, the reservist was either working full or part-time during the previous month or was not working full or part-time during the previous month.

5. Civilian Work Environment

This category consisted of a question eliciting the number of months by the end of 1979 that the reservist expected to have worked for a civilian pay and a question concerning the reservist's perception of his/her civilian employer's attitude about reserve participation. The civilian employer attitude question allowed five ordered responses ranging from very favorable to very unfavorable.

6. Perceived Alternative Job Opportunities

The only question used in this category was concerned with the reservist's perception of the difficulty associated with obtaining a part-time civilian job. This question had four ordered responses ranging from not difficult to almost impossible.

TABLE 3

CANDIDATE VARIABLES BY FACTOR CATEGORY

DEMOGRAPHIC

Sex--(Q76)
Race--(Q78)
Marital Status--(Q79)

COGNITIVE/AFFECTIVE ORIENTATION

1. Intrinsic Factors
   Satisfaction with training (Q64)
   Satisfaction with MOS skills utilization (Q65)
   Satisfaction with promotion opportunities (Q66)
   Newness of equipment used in training (Q67)
   Mechanical condition of equipment used in training (Q68)
   Morale of unit soldiers in grades E1-E4 (Q71)
   Satisfaction with supervision and direction at training (Q72)
   Satisfaction with pay (Q73)
   Individual's overall satisfaction with reserve participation (Q74)

2. Extrinsic Factors
   Length of expected time to next promotion (Q7)
   Distance from home to unit drill location (Q49)
   Time it takes to get from home to unit drill location (Q51)
   Degree of problem associated with obtaining transportation to unit drill location (Q52)
   Feeling about the amount of time spent performing reserve duties (Q129D)

FAMILY INCOME FACTORS

Whether or not spouse works (Q80)
Whether or not the reservist worked full or part-time last month (Q98)

TABLE 3 (CONTINUED)

CIVILIAN WORK ENVIRONMENT

Number of months by the end of 1979 that the reservist expected to have worked for civilian pay (Q95)

The reservist's perception concerning his/her civilian employer's attitude about reserve participation (Q118)

PERCEIVED ALTERNATIVE JOB OPPORTUNITIES

The reservist's perception of the difficulty associated with obtaining a part-time civilian job. (Q122)

Note: Q___ refers to the question number appearing on the questionnaire.

IV. METHODOLOGY AND DATA ANALYSIS

A. METHODOLOGY

A frequency analysis of reenlistment intent for the 123 PAS reservists and the 92 NPAS reservists revealed that reenlistment intent was distributed much more uniformly for the PAS group than for the NPAS group. The NPAS group had concentrations of observations at both extremes of reenlistment intent. For this reason, a logistic equation was used to analyze reenlistment intent for the NPAS group.

A plausible explanation for the differences in reenlistment intent distributions relates to the civilian job status of NPAS and PAS reservists. Data representing the number of months in 1979 that the reservist expected to work for civilian pay revealed that the NPAS group's civilian job situation was much more stable than was the PAS group's civilian job situation. Greater civilian job security within the NPAS group would allow these reservists to be more definitive than the PAS reservists in their decision to maintain a second job.

Reenlistment intent was analyzed for each set of variables identified in Table 3 for both the PAS and NPAS groups using the maximum R-squared improvement (MAXR) technique.

The MAXR technique is considered superior to the stepwise technique. This technique begins by finding the one-variable model producing the highest R-squared. Then another variable, the one that yields the greatest increase in R-squared,is added. Once the two variable model is obtained, each of the variables in the model is compared to each variable not in the model. For each comparison, MAXR determines if removing one variable and replacing it with the other variable increases R-squared. After comparing all possible switches, the one that produces the largest increase in R-squared is made. Comparisons begin again, and the process continues until MAXR finds that no switch could increase R-squared. The two-variable model thus achieved is considered the "best" two-variable model the technique can find. [Ref. 32] The explanatory power of each factor category for reenlistment intent was determined using the MAXR technique. Variables in each category that entered the regression equation at a probability value less than .1 were used for further PAS and NPAS reenlistment analysis. The results for the PAS and NPAS variable sets are discussed below.

B. PAS FACTOR CATEGORY RESULTS

1. Demographic

Nonwhite was the only variable of the three variables in this category that was significant at the .1

TABLE 4

CUMULATIVE R-SQUARED BY CATEGORY FOR PAS RESERVISTS

DEMOGRAPHIC	CUMULATIVE R-SQUARED	PROB > F
Nonwhite (Q78)	.040	.020
Nonmarried (Q79)	.056	.173
Male (Q76)	.069	.213
COGNITIVE/AFFECTIVE ORIENTATION		
1. INTRINSIC		
Satisfaction with reserve participation (Q74)	.347	.029
Satisfaction with MOS skills utilization (Q65)	.400	.286
Satisfaction with pay (Q73)	.419	.090
Satisfaction with training (Q64)	.430	.172
Satisfaction with supervision and direction at training (Q72)	.433	.521
Newness of equipment used in training (Q67)	.435	.378
Mechanical condition of equipment used in training (Q68)	.437	.521
Satisfaction with promotion opportunities (Q66)	.439	.600
Morale of unit soldiers in grades E1-E4 (Q71)	.440	.725
2. EXTRINSIC		
Feeling about the amount of time spent performing reserve duties (Q129D)	.073	.021
Length of time to next promotion (Q7)	.110	.070

TABLE 4 (CONTINUED)

	CUMULATIVE R-SQUARED	PROB > F
Problems obtaining transportation to and from drill locations (Q52)	.127	.158
Time it takes to get to drill location (Q51)	.128	.721
Distance to drill location (Q49)	.128	.826
FAMILY INCOME FACTORS		
Whether or not spouse works (Q80)	.013	.205
Whether or not the reservist worked full or part-time last month (Q98)	.015	.671
CIVILIAN WORK ENVIRONMENT		
The number of months by the end of 1979 that the reservist expected to have worked for civilian pay (Q95)	.024	.091
PERCEIVED ALTERNATIVE JOB OPPORTUNITIES		
The reservist's perception of the difficulty associated with obtaining a part-time civilian job (Q122)	.024	.100

level using the MAXR technique. If the reservist was nonwhite, he/she had the highest reenlistment intent. Nonwhite was the only demographic variable retained for final PAS reenlistment intent analysis.

2. Cognitive/Affective Orientation (Intrinsic)

Only two variables in this group were significant at the .1 level using the MAXR technique; Satisfaction With Reserve Participation and Satisfaction With Pay. As expected, as Satisfaction With Reserve Participation and Pay increased, reenlistment intent also increased for PAS reservists. Satisfaction With Reserve Participation and Satisfaction With Pay were the only intrinsic variables retained for final PAS reenlistment intent analysis.

3. Cognitive/Affective Orientation (Extrinsic)

The Reservist's Feeling About the Amount of Time Spent Performing Reserve Duties and The Length of Time to the Reservist's Next Promotion were the only variables significant at the .1 level using the MAXR technique. For the former variable, as the reservist's feeling about the amount of time spent performing reserve duties was felt to be "too much", reenlistment intent showed a decrease. For the latter variable, the closer a reservist was to promotion, the greater was his/her reenlistment intent. These two variables were the only variables retained for final PAS reenlistment intent analysis.

4. Family Income Factors

Whether or not the Reservist's Spouse was Working Full or Part-time and Whether or not the Reservist was Working Full or Part-time Last Month were not significant at the .1 level. Therefore, no variables from this category were retained for final PAS reenlistment intent analysis.

5. Civilian Work Environment

The Number of Months That the Reservist Expected to Work for Civilian Pay in 1979 was significant at the .1 level. As the number of months that the reservist expected to work for civilian pay in 1979 increased, reenlistment intent increased. The theory predicted that greater civilian income would decrease reenlistment rates. However, only 35% of the PAS reservists were stable in their civilian jobs. Therefore, this variable is not a pure measure of civilian income, but is to a large extent a measure of civilian job stability. Previous studies finding a decrease in reenlistment intent as civilian income increased did so with data sets that had over 90% of the respondents working full or part-time. The reservist's perception of his/her civilian employer's attitude about reserve participation had to be eliminated due to 25% missing responses.

6. Perceived Alternative Job Opportunities

The Reservist's Perception of the Difficulty Associated With Finding a Part-time Civilian Job was found significant at the .1 level, and as the perceived difficulty

in finding a part-time civilian job increased, reenlistment intent increased.

All variables retained for final PAS reenlistment intent analysis are shown in Table 5.

TABLE 5

VARIABLES RETAINED FOR FINAL PAS REENLISTMENT INTENT ANALYSIS

Demographic--Nonwhite

Tenure--Controlled for

Cognitive/Affective Orientation

1. Intrinsic

   Satisfaction with reserve participation (Q74)
   Satisfaction with pay (Q73)

2. Extrinsic Factors

   The reservist's feelings about the amount of time spent on reserve activities (Q124D)
   Approximate length of time to the reservist's next promotion (Q7)

Family Income Factors--None

Civilian Work Environment

The number of months by the end of 1979 that the reservist expected to work for civilian pay (Q95)

Perceived Alternative Job Opportunities

The reservist's perception of the difficulty associated with finding a part-time civilian job (Q122)

C. PAS MODEL RESULTS

The variables listed in Table 5 were regressed against reenlistment intent using the MAXR technique. The final PAS model is given in Table 6.

TABLE 6

FINAL PAS MODEL (# OF CASES = 82)
WITH REENLISTMENT INTENT AS THE DEPENDENT VARIABLE (Q44)

R-Squared = .42 F = 17.04 Prob > F = .0001

	Coefficient	Cumulative R-Squared	Prob > F
Intercept	-3.364	--	--
Satisfaction with reserve participation (Q74)	1.03	.367	.0011
# of months by the end of 1979 expecting to work for civilian pay (Q95)	.138	.401	.030
Perception of the difficulty in obtaining a part-time civilian job (Q122)	.674	.420	.095
Satisafaction with pay (Q73)	.246	.435	.186
Length of time to next promotion (Q7)	-.11	.440	.435
Feeling about the amount of time spent performing reserve duties (Q129D)	.280	.441	.733
Nonwhite (Q78)	-.014	.441	.982

In the final seven variable model only Satisfaction With Reserve Participation, The Number of Months by the End of 1979 That the Reservist Expected to Work for Civilian Pay, and The Reservist's Perception of the Difficulty in Obtaining a Part-time Civilian Job were significant at the .1 level. Using only these variables, an R-squared value of .41Ø was obtained. Little explanatory power was gained by the use of the additional four variables.

To better determine what Satisfaction With Reserve Participation meant, this variable was used as the dependent variable in a stepwise regression procedure. The available responses to Satisfaction With Reserve Participation were numbered from one to seven with one meaning that the reservist was totally dissatisfied with reserve participation; seven meaning the respondent was totally satisfied with reserve participation; and the numbers two through six each representing a satisfaction increase over the previous number.

It was expected that Satisfaction With Reserve Participation would be explained by the cognitive/affective orientation (intrinsic) variables as these variables covered a wide range of factors directly associated with the reserve job. Regressing all the variable sets against satisfaction with reserve participation confirmed this expectatation. Variables in all sets but the intrinsic set had little explanatary power for Satisfaction With Reserve

Participation. The results of the regression of the intrinsic set of variables against Satisfaction With Reserve Participation using the MAXR technique is shown in Table 7.

TABLE 7

DETERMINANTS OF SATISFACTION WITH RESERVE PARTICIPATION FOR PAS RESERVISTS (Q74); # OF CASES = 111

	CUMULATIVE R-SQUARED	PROB > F
Satisfaction with training (Q64)	.488	.0008
Satisfaction with supervision and direction at training (Q72)	.574	.003
Satisfaction with pay (Q73)	.605	.056
Newness of equipment used in training (Q67)	.619	.115
Morale of unit soldiers in grades E1-E4 (Q71)	.622	.358
Mechanical condition of equipment used in training (Q68)	.624	.479
Satisfaction with promotion opportunities (Q66)	.625	.784
Satisfaction with MOS skills utilization (Q65)	.625	.953

The results in Table 7 show that Satisfaction With Reserve Participation for PAS reservists is in large part explained by Satisfaction With Training, Satisfaction With Supervision and Direction at Training, and Satisfaction With Pay.

D. NPAS FACTOR CATEGORY RESULTS

The initial factor category regression results are shown in Table 8. Each category is discussed separately below.

1. Demographic

No variables in this category were significant at the .1 level. Therefore, no demographic variables were retained for final NPAS reenlistment intent analysis.

2. Cognitive/Affective Orientation (Intrinsic)

Satisfaction With Reserve Participation, Satisfaction With Pay, and The Mechanical Condition of Unit Equipment were all significant at the .1 level. As satisfaction with reserve participation and pay increased, so did reenlistment intent. Also, as an improvement in the mechanical condition of unit equipment was evidenced, reenlistment intent increased. These three variables were the only intrinsic variables retained for final NPAS reenlistment intent analysis.

3. Cognitive/Affective Orientation (Extrinsic)

The Appproximate Time to the Reservist's Next Promotion was significant at the .ØØ1 level, and as the time to promotion shortened, reenlistment intent increased.

The Degree of Problem Associated With Obtaining Transportation to and From Unit Drill Locations and The Reservist's Feelings About the Amount of Time Spent on Reserve Activities were both significant at the .1 level.

TABLE 8

CUMULATIVE R-SQUARED BY CATEGORY FOR NPAS RESERVISTS

DEMOGRAPHIC	CUMULATIVE R-SQUARED	PROB > F
Nonwhite (Q78)	.011	.30
Male (Q76)	.016	.56
Nonmarried (Q79)	.017	.84
COGNITIVE/AFFECTIVE ORIENTATION		
1. INTRINSIC		
Satisfaction with reserve participation (Q74)	.215	.045
Satisfaction with pay (Q73)	.263	.073
Mechanical condition of equipment used in training (Q68)	.292	.073
Newness of equipment used in training (Q67)	.304	.23
Morale of unit soldiers in grades E1-E4 (Q71)	.312	.41
Satisfaction with MOS skills utilization (Q65)	.316	.63
Satisfaction with training (Q64)	.316	.86
Satisfaction with supervision and direction at training (Q72)	.316	.96
Satisfaction with promotion opportunities (Q66)	.316	.97
2. EXTRINSIC		
Length of expected time to next promotion (Q7)	.129	.001
Feeling about the amount of time spent performing reserve duties (Q129D)	.239	.014

TABLE 8 (CONTINUED)

	CUMULATIVE R-SQUARED	PROB > F
Problems obtaining transportation to and from drill locations (Q52)	.288	.086
Distance to drill location (Q49)	.288	.501
Time it tkes to get to drill location (Q51)	.290	.650
FAMILY INCOME FACTORS		
Whether or not the reservist worked full or part-time last month (Q98)	.047	.050
Whether or not the spouse works (Q80)	.047	.977
CIVILIAN WORK ENVIRONMENT		
The reservist's perception concerning his/her civilian employer's attitude about reserve participation (Q118)	.116	.002
Number of months by the end of 1979 that the reservist expected to have worked for civilian pay (Q95)	.137	.172
PERCEIVED ALTERNATIVE JOB OPPORTUNITIES		
The reservist's perception of the difficulty associated with obtaining a part-time civilian job (Q122)	.001	.450

For the latter question, as the degree of problem associated with obtaining transportation to and from drill locations increased, reenlistment intent decreased. For the former question, when the amount of time spent on reserve activities was perceived to be "too much", reenlistment intent decreased.

4. Family Income Factors

Whether or not the Reservist Was Working Full or Part-time Last Month was the only family income factor significant at the .1 level, and if the reservist worked full or part-time last month, he/she was more likely to reenlist.

5. Civilian Work Environment

The Reservist's Perception of his/her Civilian Employer's Attitude Towards Reserve Participation was significant at the .Ø1 level. For this variable, as the reservist's perception of his/her employer's attitude towards reserve participation improved, reenlistment intent increased.

6. Perceived Alternative Job Opportunities

The Reservist's Perception of the Difficulty Associated With Obtaining a Part-time Civilian Job was not significant at the .1 level and as such was not retained for final NPAS reenlistment intent analysis.

All variables retained for final NPAS reenlistment intent analysis are listed in Table 9.

TABLE 9

VARIABLES RETAINED FOR FINAL NPAS REENLISTMENT INTENT ANALYSIS

Demographic--None

Tenure--Controlled For

Cognitive/Affective Orientation

1. Intrinsic

   Satisfaction with reserve participation (Q74)
   Satisfaction with pay (Q73)
   Mechanical condition of equipment (Q68)

2. Extrinsic

   Approximate length of time to the reservist's next promotion (Q7)
   Degree of problem associated with obtaining transportation to and from drill locations (Q52)
   The reservist's feelings about the amount of time spent on reserve activities (Q129D)

Family Income Factors--Whether or not the reservist worked full or part-time last month (Q98)

Civilian Work Environment

The reservist's perception of his/her civilian employer's attitude about reserve participation (Q118)

Perceived Alternative Job Opportunities--None

E. NPAS MODEL RESULTS

The variables listed in Table 9 were regressed against reenlistment intent using the MAXR technique. The final NPAS model is given in Table 10.

TABLE 10

FINAL NPAS MODEL (# OF CASES = 61) WITH THE LOG OF REENLISTMENT INTENT AS THE DEPENDENT VARIABLE (Q44)

	Coefficient	Cumulative R-Squared	Prob > F
Intercept	-1.34	--	--
Satisfaction with reserve participation (Q74)	.70	.245	.0081
The reservist's perception concerning his/her civilian employer's attitude about reserve participation (Q118)	-.64	.307	.120
Length of time to the reservist's next promotion (Q7)	-.311	.353	.110
Satisfaction with pay (Q73)	.310	.386	.250
Degree of problem associated with obtaining transportation to and from unit drill locations (Q52)	.737	.394	.395
Mechanical condition of equipment used in training (Q68)	.128	.397	.661
Feeling about the amount of time spent performing reserve duties (Q129D)	.181	.397	.860
Whether or not the reservist worked full or part-time last month (Q98)	-.042	.397	.971

Three variables; Satisfaction With Reserve Participation, The Reservist's Perception Concerning his/her Civilian Employer's Attitude About Reserve Participation, and Length of Time to the Reservist's Next Promotion were all significant at the .12 level. As a three variable best model, these variables had a cumulative R-squared of .353. Little improvement in explanatory power occurred with the addition of the other five variables.

The determinants of Satisfaction With Reserve Participation were analyzed using the same procedure discussed in the PAS model results section. Once again, the intrinsic set of variables was the only set that had significant explanatary power for this variable. The results of the regression of the intrinsic set of variables against Satisfaction With Reserve Participation using the MAXR technique is shown in Table 11.

The results in Table 11 show that Satisfaction With Reserve Participation for NPAS reservists is in large part explained by Satisfaction with Training, Morale of Unit Soldiers in Grades E1-E4, and Satisfaction With Pay.

F. PAS AND NPAS MODEL COMPARISONS

Satisfaction With Reserve Participation was a significant variable in both the final PAS and NPAS models. For both groups, Satisfaction With Training explained a large percentage of the variation associated with

TABLE 11

DETERMINANTS OF SATISFACTION WITH RESERVE PARTICIPATION FOR NPAS RESERVISTS (Q74); # OF CASES = 82

	CUMULATIVE R-SQUARE	PROB > F
Satisfaction with training (Q64)	.302	.015
Morale of unit soldiers in grades E1-E4 (Q71)	.400	.0027
Satisfaction with pay (Q73)	.426	.091
Satisfaction with promotion opportunities (Q66)	.444	.157
Satisfaction with supervision and direction at training (Q72)	.446	.560
Mechanical condition of equipment used in training (Q68)	.447	.615
Newness of equipment used in training (Q67)	.448	.804
Satisfaction with MOS skills utilization (Q65)	.448	.924

Satisfaction With Reserve Participation. Satisfaction With Reserve Participation appears to be a direct measure of job satisfaction and is roughly of equal importance to both groups.

The Number of Months by the End of 1979 That the Reservist Expected to Work for Civilian Pay appears in the final PAS model only, and as the number of months by the end of 1979 that the reservist expected to work for civilian pay increased, so did reenlistment intent. The unstable civilian work situation of the PAS reservists as compared to the NPAS reservists (discussed in the Methodology Section) is felt to be the reason that this variable appears in only the final PAS model.

The Length of Time to the Reservist's Next Promotion is included in the final model of both groups. This variable had a much lower significance level for the final NPAS model and added comparatively more to the cumulative R-squared in the final NPAS model.

The Reservist's Civilian Employer's Attitude Towards Reserve Participation could not be tested in the PAS model. However, this variable was included in the final NPAS model and therefore suggests that the civilian employer's attitudes and policies are considered by the NPAS first-term reservist when making his/her reenlistment decision.

Problems Associated With Obtaining Transportation to and From Unit Drill Locations appears in the final NPAS model

but was not significant at the .1 level. The NPAS reservists who, as a group, are more stable in their civilian work situation than the PAS reservists, certainly have less incentive to relocate to a different area closer to their reserve drill location. For this reason, the problems associated with obtaining transportation to unit drill locations are probably viewed as being more permanent in nature by the NPAS reservists. This variable could very well prove to be an important variable for both PAS and NPAS reservists if those reservists are stable in their civilian work situation. This information would suggest investigating whether an optimally located drill site for a potential reserve pool could be determined.

The reservist's feelings about the amount of time spent on reserve activities entered the final model of both groups. However, in both models, this variable contributed little to the explanation of reenlistment intent and did not enter either model at a low significance level. Additionally, it is difficult to ascertain from the responses to this variable whether the reservist feels that he/she spends too much time on only normal, required duty hours, or whether the reservist is including time for which no monetary compensation is received.

Many reservists find it necessary to work unpaid hours to properly prepare themselves for the events that will take

place on drill weekends. This trend is in part a result of the increasing number of missions that the reserves are required to perform. This problem is in the infancy stage and should be examined in future studies to better ascertain its meaning and its ramifications.

G. NOTEWORTHY DEMOGRAPHIC DISTRIBUTIONS

For the most part, demographic variables turned out not to be related to reenlistment intent in this study. However, as shown in Table 11, cross-tabulations of sex, race, and previous active service are interesting.

TABLE 12

PERCENTAGE BREAKOUTS FOR SEX AND RACE

	PAS	NPAS
Sex		
Male	85%	61%
Female	15%	39%
Race		
White	41%	52%
Nonwhite	59%	48%

From the distributions shown in Table 12, it is apparent that the first term reservist surveyed within eighteen months of his/her ETS was much more likely to be a male and nonwhite if a member of the PAS group.

Since the PAS group is 59% nonwhite, has greater job instability than exists for the NPAS group, and has probably already experienced difficulty in finding a full or part-time civilian job resulting from active force ETS, it seems reasonable that the reservist's perception of the difficulty in finding a part-time civilian job appears in the final PAS model and not in the final NPAS model.

The importance of demographics in obtaining a better understanding of other variables under study warrants the inclusion of demographic variables in future research efforts involving PAS and NPAS reservists.

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

This thesis was largely exploratory in nature. Few previous research efforts have attempted to examine the scope of reserve reenlistment factors upon which this study focused. Additionally, no reserve retention study has recognized the dichotomy of reservist distinguished by having had prior active service or not.

The refinement of the data base that was necessary in order to examine the first term reservist within eighteen moths of ETS and who had entered the reserves after the start of the AVF precluded the analysis of some potentially important factors. High missing response rates and low levels of responses for a number of questions were tne reasons that a more complete analysis, encompassing the breadth of first term reenlistment factors, was not performed. The moonlighting variables discussed in the review of the literature are factors that could not be fully analyzed in this data set. Questions eliciting information concerning hours worked on the civilian job, civilian job income, and total income from all sources had high levels of missing responses. This could be indicative of the difficulty associated with answering "fill-in" type

questions as opposed to "selection" type questions. However, in spite of these limitations a sufficient breadth of variables remained for the development of viable first term PAS and NPAS reserve reenlistment models. Major conclusions concerning these models are as follows:

Job satisfaction to reservists in both groups is highly important. Satisfaction With Reserve Participation, which in large part is explained by Satisfaction With Training, was the single most important explanatory variable for both groups using the MAXR technique. This confirms the suggestion of Burright et al. (October, 1982) that the qualitative aspects of reserve participation influence the reservist's reenlistment decision [Ref. 33]. Furthermore, the notion that reserve participation may provide a unique combination of a second job and a leisure time activity appears more plausible when the results of this study and the results of Burright et al. are examined together.

The civilian employer's attitude towards reserve participation is most likely reflected through policies regarding leave time and compensation for required reserve duty in place of civilian work (annual training). The Civilian Employer's Attitude Towards Reserve Participation was an important variable in the final NPAS model (this variable was not available for testing in the PAS model due to high missing values and a low response rate). This result confirms the finding from Burright et al.

(October 1982) that reenlistment decisions depend importantly on employer attitudes and policies [Ref. 34].

The Reservist's Perception of the Difficulty in Obtaining a Part-time Civilian Job was an important factor to the PAS reservists but not the NPAS reservists in making their reenlistment decision. The recent entry of the PAS reservists into the civilian job searching market due to their active force ETS is certainly a reason why this variable would be more important to PAS reservists than to NPAS reservists. Additionally, a higher percentage of minorities in the PAS group adds to the importance of this variable as minorities may tend to have a more difficult time than would whites in obtaining a civilian job. The cyclical nature of the availability of civilian jobs is probably a factor in part determining the importance of this variable for both groups.

Satisfaction With Pay and Promotion, while important variables to both groups, appear to be less important in the reenlistment decision than Satisfaction With Reserve Participation, The Civilian Employer's Attitude Toward Reserve Participation, and for the PAS group, The Perceived Difficulty in Finding a Part-time Civilian Job. The relative importance of job satisfaction, pay, and promotion were generally consistent with the retention identification model (Figure 6) presented in the review of the literature.

While this basic model was based only on conversations with reservists, its representation of these variables is fairly accurate.

B. RECOMMENDATIONS

Due to the exploratory nature of this thesis, no specific recommendations for reserve manpower policy implementation are made. However, the following general recommendations are presented:

1. Up to date data on the variety of factors affecting reenlistment should be collected with special control measures implemented for "fill-in" type questions on surveys.

2. Differences and similarities between PAS and NPAS reservists should be examined in future studies using current data bases.

3. Qualitative aspects of the reserve job should continue to be monitored and emphasized throughout the reserve chain of command.

4. The civilian employer must be recognized as an important person affecting reserve retention. Additionally, specific channels for assisting the reservist with civilian employer problems relating to reserve participation should be established.

5. The amount of time reservists spend on reserve related duties without receiving monetary compensation should be closely monitored. This problem will become more critical if reserve roles in the total force concept are increased.

6. The feasibility of improving the location of reserve drill sites to serve a potential reserve pool should be examined in future studies.

7. The effect of Reserve retirement, reenlistment bonuses, and educational assistance packages should be examined in future reserve retention studies.

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